CHART
Center for Health Analytics, Research & Transformation at NJHA

BULLETIN

Pressure to Leverage Real Time Medical Alerts is Mounting

Electronic health record (EHR) technology has allowed clinical information to span the limits of time, space and physical location, creating the potential for access across various provider settings. That access and integration provides a wealth of possibilities for improving patient care, safety and outcomes, including the use of EHR-powered alerts. For a number of reasons, however, clinicians have not leveraged all of the broad potential of EHR technology. That may be changing as the industry faces mounting pressure, through policy changes and fiscal incentives, to get on board with health information exchange (HIE).

Health Information Exchange

New Jersey, like other states, has invested resources in developing a regional health information exchange, the New Jersey Health Information Network, or NJHIN. Bridging the patient clinical information divide across multiple clinical settings has been no easy feat. Many of the early electronic health record systems lacked the ability to share information easily with HIEs especially in early physician/ambulatory care EHR versions. With the advent of the HITECH Act in 2009, the Office of the National Coordinator, part of the U.S. Department of Health and Human Services, for the first time required EHR certification that included data interoperability with HIEs or other providers' EHRs.

Despite that law, most HIE organization leadership realized that simply mandating or even building secured robust datasets of patient clinical information is not enough. The real potential of this technology is to securely push the information to clinical settings in a smart automated way, determined by clinical teams as proactive alerts that promote patient safety and improved outcomes. Achieving the right information, at the right time, for the right patient, delivered in the exact way that supports emergent and efficient care is the fundamental goal of HIEs.

The Regulatory Push

Regulations and financial incentives are now beginning to align with this push for improved health information exchange to better serve patients. The Centers for Medicare and Medicaid Services published a proposed rule in February that will require all health providers that receive Medicare and Medicaid funding to share their "admission, discharge and transfer" messages, commonly known as ADT, with a regional state HIE, or statewide health information network.

In New Jersey, that time is now. The fiscal year 2020 state budget requires all acute care hospitals to share their ADTs directly with the New Jersey Health Information Network or indirectly via a regional HIE by July 2019 in order to receive charity care funding.

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The potential funding in jeopordy for each acute care hospital varies, but the statewide impact would be $269 million if hospitals failed to meet the new requirement.

Admission, Discharge and Transfer Messages

ADT systems and the messages they produce are the technical backbone of a hospital's health information systems. Once a patient presents in an emergency room or is admitted as an inpatient, the hospital ADT system broadcasts a message across the hospital's internal network that connects a number of hospital departments as one system. All the internal systems that need to know when a patient presents are on watch for these messages. That single point of information helps to coordinate across departments when the patient arrives, has a test scheduled (along with the results), receives special dietary orders, moves to a different unit and every other step of the care experience. It is the key link to all operational and clinical aspects of patient care within a hospital.

With the advent of the Internet and the ability to share clinical information in a secured way, the ability to leverage ADT messages across the continuum of care using a health information exchange has the potential to unlock real time clinical alerts when required.

The interest and pressure to leverage ADT messaging has never been greater, but just like other promising healthcare technologies it needs to be thoughtful, flexible and secure. The integration of ADT messages driving clinical use case alerts also needs to be seamless with respect to a physician's clinical workflow and not create undue burden that negatively impacts patient care. Leveraging secured technology through automation behind the scenes to push clinical alerts will not only leverage important clinical information, but if designed correctly can have a significant clinical impact on quality. Figuring out what information to push and for which patients will require both clinician input and acceptance.

Clinical Use Cases

In healthcare, the most successful rollouts of new technology have been aligned with a very specific care purpose that complies with HIPAA privacy rules and to ensure patient data shared by an HIE is strictly for care or operational purposes. The concept of a "clinical use case" ensures that when patient clinical information is leveraged in an automated way, there is a very specific reason that supports patient care.

For instance, an alert system can notify a clinician when a patient with a life-limiting illness presents to the ED with a Practitioners Orders for Life-Sustaining Treatment (POLST) form documenting end-of-life care preferences. That automated alert can help assure that the ED team knows immediately that the patient has documented care preferences with a provider and avoid interventions that are not aligned with the patient's wishes. If an ADT message were to automate that clinical look-up, even an ED clinician seeing that patient for the first time would be alerted and given immediate access to the detailed list of the patient's care preferences.

There are numerous clinical use cases that can enhance care by equipping the clinician with real-time point-of-care alert information driven by the patient's clinical data and treatment history. A clinician supported by a well-designed clinical use case also could benefit from instant credibility with patients and avoid a lot of unnecessary questions that patients might be tired of answering, especially if they are in pain. This use case automation has the potential for reducing emergency department and office visit wait times, fostering greater patient satisfaction and, most importantly, driving better patient outcomes.

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